

## CLAIMS:

1. An electrophoretic display unit (1) comprising
  - an electrophoretic display panel (50) comprising a pixel (11) coupled to a pixel electrode (5);
  - data driving circuitry (30) for supplying a data pulse ( $D_1, D_2, D_3, D_4, D_5, D_6$ ) to the pixel electrode (5) via a switching element;
  - a common electrode (6) coupled to the pixel (11) for receiving an alternating voltage signal ( $V_6$ ); and
  - a controller (20) for controlling the data driving circuitry (30) for supplying a setting signal ( $S_1, S_2$ ) to the pixel electrode (5) for reducing a voltage across the pixel (11) before a transition of the alternating voltage signal ( $V_6$ ).
2. An electrophoretic display unit (1) as defined in claim 1, wherein the switching element comprises a transistor (12), having a gate, source and drain, the data driving circuitry (30) being coupled to the source via a data electrode (32) the selection driving circuitry (40) being coupled to the gate via a selection electrode (42), and the pixel electrode (5) being coupled to the drain.
3. An electrophoretic display unit (1) as defined in claim 1, wherein the data pulse ( $D_1, D_2, D_3, D_4, D_5, D_6$ ) is supplied during a driving frame period ( $F_d$ ); and the setting signal ( $S_1, S_2$ ) is supplied during a setting frame period ( $F_s$ ), the alternating voltage signal ( $V_6$ ) having the transition after the setting frame period ( $F_s$ ).
4. An electrophoretic display unit (1) as defined in claim 3, wherein the data pulse ( $D_1, D_2, D_3, D_4, D_5, D_6$ ) is supplied during more than one consecutive driving frame period ( $F_d$ ).
5. An electrophoretic display unit (1) as defined in claim 3, wherein the setting frame period ( $F_s$ ) is shorter than the driving frame period ( $F_d$ ).

6. An electrophoretic display unit (1) as defined in claim 1, wherein the alternating voltage signal ( $V_6$ ) and the setting signal ( $S_1$ ,  $S_2$ ) have equal polarities during a setting frame period ( $F_s$ ).
- 5 7. An electrophoretic display unit (1) as defined in claim 1, wherein an amplitude of the alternating voltage signal ( $V_6$ ) and an amplitude of the setting signal ( $S_1$ ,  $S_2$ ) are substantially equal to each other during a setting frame period ( $F_s$ ).
8. An electrophoretic display unit (1) as defined in claim 1, wherein the  
10 controller (20) is adapted to control the data driving circuitry (30) to provide  
- shaking data pulses;  
- one or more reset data pulses; and  
- one or more driving data pulses;  
to the pixel (11).
- 15 9. A display device comprising an electrophoretic display unit (1) as defined in claim 1; and a storage medium for storing information to be displayed.
10. A method of driving an electrophoretic display unit (1) comprising an  
20 electrophoretic display panel (50), which comprises a pixel (11) coupled to a pixel electrode (5), which method comprises the steps of  
- supplying a data pulse ( $D_1$ ,  $D_2$ ,  $D_3$ ,  $D_4$ ,  $D_5$ ,  $D_6$ ) to the pixel electrode (5);  
- supplying an alternating voltage signal ( $V_6$ ) to a common electrode (6) coupled to the pixel (11) via a switching element; and  
25 - controlling the data driving circuitry (30) for supplying a setting signal ( $S_1$ ,  $S_2$ ) to the pixel electrode (5) for reducing a voltage across the pixel (11) before a transition of the alternating voltage signal ( $V_6$ ).
11. A driving unit (30, 20) for driving an electrophoretic display unit (1)  
30 comprising an electrophoretic display panel (50) comprising a pixel (11) coupled to a pixel electrode (5) and to a common electrode (6) for receiving an alternating voltage signal ( $V_6$ ), the driving unit (30, 20) comprising:  
- data driving circuitry (30) for supplying a data pulse ( $D_1$ ,  $D_2$ ,  $D_3$ ,  $D_4$ ,  $D_5$ ,  $D_6$ ) to the pixel electrode (5) via a switching element.

- a controller for controlling the data driving circuitry (30) for supplying a setting signal ( $S_1$ ,  $S_2$ ) to the pixel electrode (5) for reducing a voltage across the pixel (11) before a transition of the alternating voltage signal ( $V_6$ ).